ABSTRACT OF THE DISCLOSURE:

A system for the coordination of distributed programs, services and data with help of application programs in a network of computers, where local software systems (18,19,20) are running, that are serviced by coordination servers (21,22,23), where shared objects (9) are used as communication objects for the exchange of messages and where transactions are used for the realization of the communication, and where the communication objects (9) are uniquely identified by object identification numbers (OID) and only processes that possess a reference to a communication object are granted access to it via the corresponding local coordination server; where all coordination servers (21,22,23) are defined to form a global operating system (24); where the local software systems (18,19,20) are enriched by functions for transaction control, for the creation and the blocking or non-blocking reading of communication objects, for the specification of transactional predicates, and for the creation and control of uniquely identified processes that are granted access to all passed references to communication objects; and where the communication objects (9) are administrated by means of replication based distribution strategies on which the application programs do not depend on, is described.